Leigh User Guide *F2, F1600*

Finger Joint Template

Your New Leigh Fingerjoint Template

You now own a unique finger jointing system. The Leigh Finger Joint template and Variable Guidebush System (VGS) will help you rout finger or box joints with unique adjustment for precise tightness of fit.

"Finger" and "Box": Both words are used universally to title this simple but strong joint. As the first machine-made joint, it's old enough to be called antique, so we have been even-handed in using both terms throughout this guide.

We recommend that you first mount the template on your Leigh Jig, carefully following the instructions in the first section of the manual. Then before you try to do any actual joinery routing, read the rest of the manual, following along with the basic functions. By all means, cut a few practice joints in scrap boards before you use the template to rout a precious hardwood workpiece.

*If you have any questions that are not answered in the manual, please call the most convenient Leigh customer support line *.*

**See Appendix IV – Customer Support*

Joining Tradition with Today

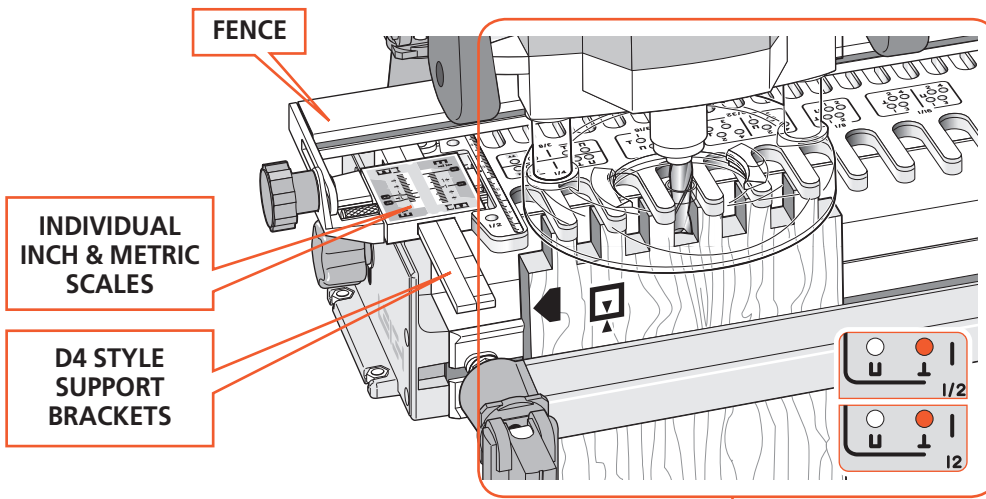
Are there operational differences between the F2 and F1600?

No. While the F2 is illustrated for most of the procedures in this guide, the differences between the F2 and the F1600 do not affect the operational instructions. Movements and settings illustrated in each step are identical whether performed on the F2, F2M, F1600, or F1600M.

Icon types for template pin positions are the same on all templates.

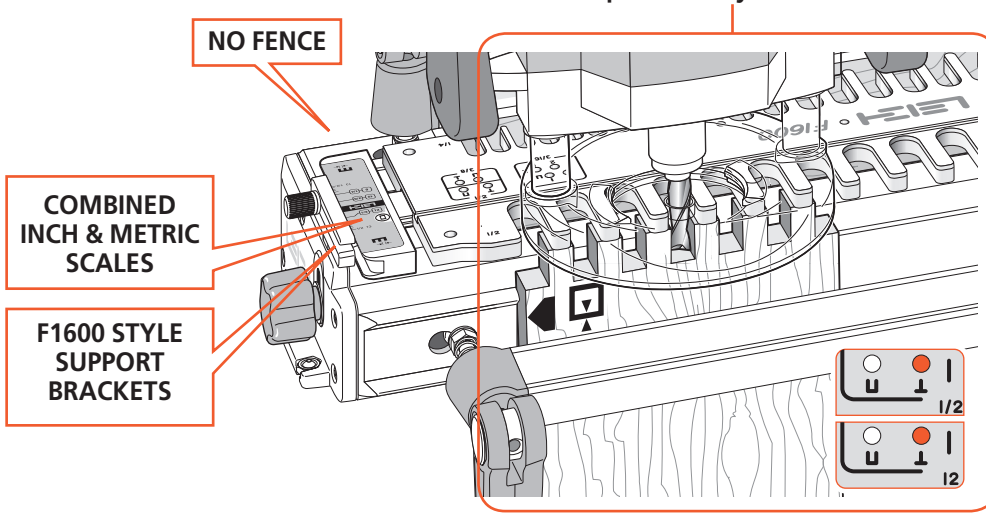
The F1600 of course is smaller than the F2 so maximum board width and thickness will differ. See the charts for your particular model in Chapter 5.

F2/F2M



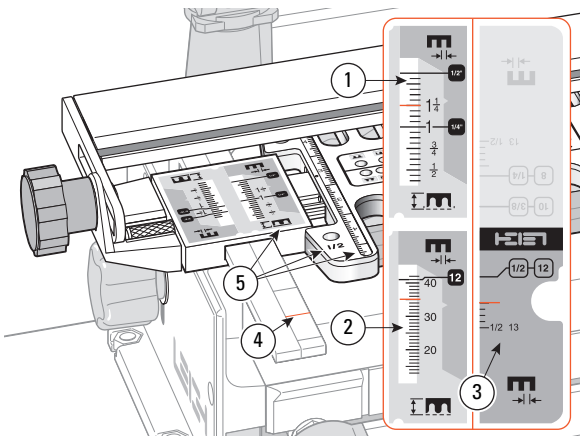
F1600/F1600M

Everything in these frames is operationally identical



Important: Inches and Millimetres

Because Leigh makes F2 and F1600 templates in inch and metric models, measurements in this user guide are shown in both inches and millimetres. Dimensions are indicated with "inches" first, followed by "millimetres" in square parentheses.
Examples: ½"[12mm], or
¾"x5½"x8" or longer [20x140x200mm].
Do not be concerned if the inch/millimetre equivalents are not always exact. Just use the dimensions which apply to your jig.



Reading the Settings Illustrations

The template scales are illustrated in a panel overlaying the main illustration whenever settings are specified in an instruction. Settings for procedures are shown with a red line on the respective scale.

The F2 scales are on the left side of the panel, with the "inches" scales ① at the top, and the "millimetres" scales ② at the bottom.
Only the "active" half of the F2 scales are illustrated.

The F1600 scale is on the right ③ side of the panel. This scale has dual markings for inch and metric. The active portion is on the bottom. The inactive (upside down) portion is shown greyed-out.

When calibration marks on the support brackets ④ are highlighted, they are illustrated in red for clarity. **On the jig, the lines are *black*.**

General views of the template are illustrated with inch markings ⑤.

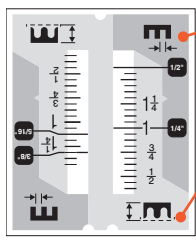
How to Read the Symbols

To help you understand the instructions and illustrations in this user guide, we have used a number of international symbols, plus a few special ones of our own. They are all explained below. You needn't worry about memorizing these symbols now because they are repeated frequently throughout the guide, and you will soon get used to them.

Glossary of Symbols

The Leigh Finger Joint Template can be in one of two modes, with the selected comb to the front (toward you, the operator).

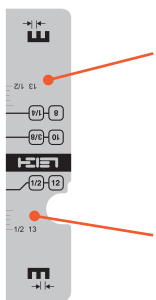
F2 Scale Icons



This icon on green background is the active scale for square box joints

F2 24" only:
This icon on gray background is the active scale for rounded finger joints

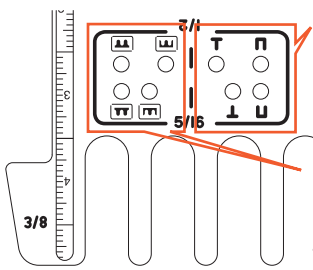
F1600, Scale Icons



Upper scale is upside down and is inactive

Lower scale is right side up and is the active scale.

Template Icons and Numbers (engraved)

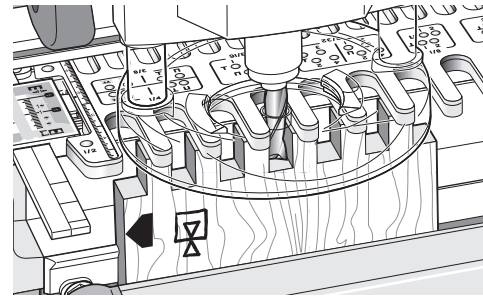


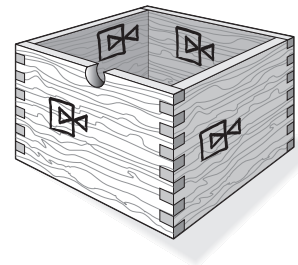
Template positions for square box joints

F2 24" only:
Template positions for rounded finger joints

Which Way Round Should the Board Go?

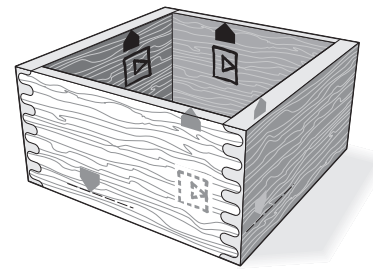
We devised these icons to indicate which side of a board faces out (toward you when it is clamped in the jig), and which faces are in or out when assembled.





Boards are clamped in the jig both "face in" and "face out" for alternate end cuts; e.g. all regular box joint ends are routed this way

Inside of board. All rounded half-blind finger joints (F2 24" only), and all "square" half-blind box joints are clamped in the jig with the inside face away from the jig toward you, the operator.



Dotted icons are on the other side of the board.

The following symbols indicate:

This edge against side stop

This edge against side stop

As above, other side of board

Caution: use special care for this operation

①②③ Numbered References in text

Centreline of board or layout

± Plus/Minus

= Equals

≠ Does not equal

~ Approximately

F2, F1600 ***CHAPTER 1***

Assembly, Mounting and Template Alignment

Assembly and Mounting

Before you begin mounting the Leigh Finger Joint Template to your Leigh jig, make sure you have received the model ordered (Inch or Metric), and all the necessary parts.

1. 1 complete Template "inch" assembly
or
1 complete Template "metric" assembly

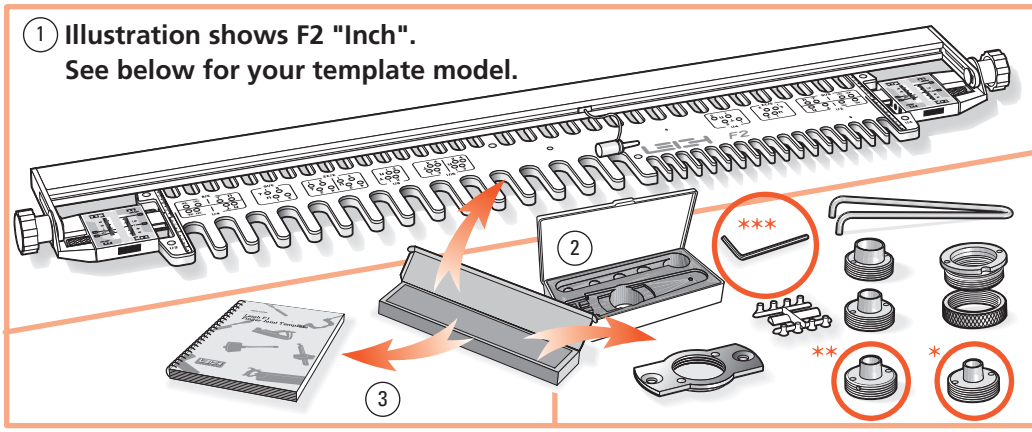
2. Variable Guidebush System consisting of:
1 storage box
1 pin wrench
***1 hex key (F2/F2M only)
1 700V holder with lock nut
1 701V holder
*1 709V bush (inch templates only)
**1 711V bush (with F2 inch/metric, F1600M)
1 713V bush
1 716V bush
6 bush nylon plugs (on one tree)

3. 1 user guide

If any of these items are missing, please notify your supplier or Leigh Industries immediately.

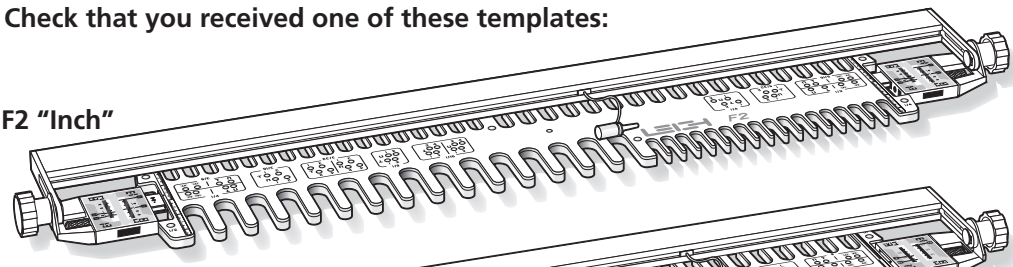
Your Leigh F2 or F1600 comes fully assembled and require only mounting and indexing to your Leigh jig. This procedure is critical to the accuracy of the finished joinery, so please follow the mounting instructions carefully.

Record your template serial number (located on the underside of the scale block) in the space reserved on page 82 or 84.

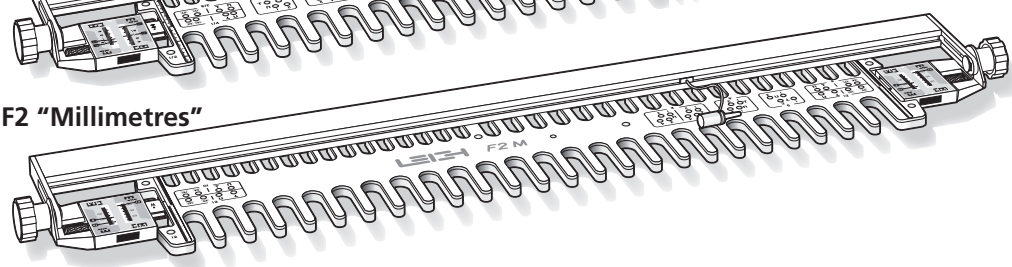


Check that you received one of these templates:

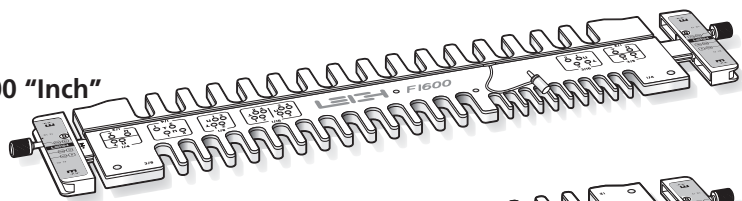
F2 “Inch”



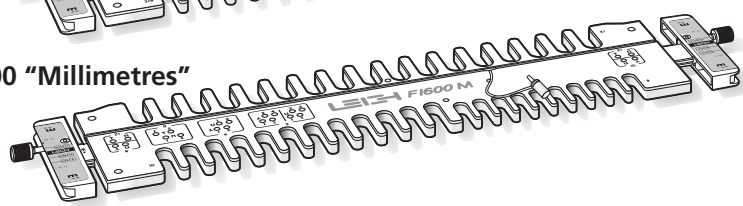
F2 “Millimetres”

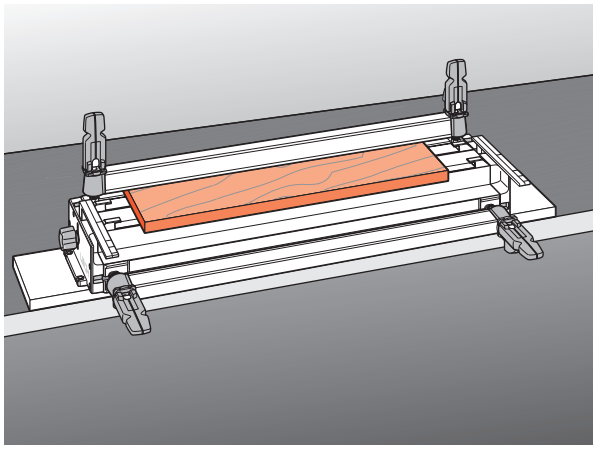


F1600 “Inch”



F1600 “Millimetres”



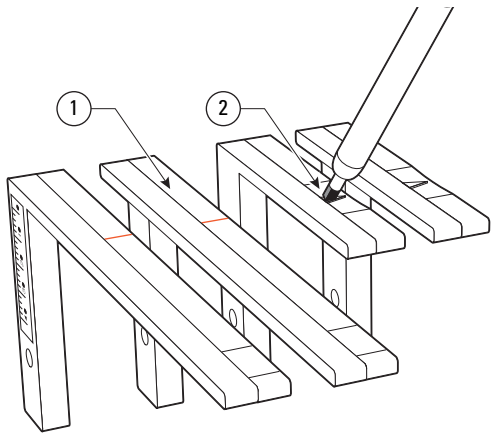


1-1 Mounting F2/F2M to 24" Series Jig

Note: See 1-11for F1600 setup.

Procedure is the same for Inch and Metric 24" templates.

Make sure your jig is mounted as per its User Guide, and the spacer board is clamped into position.

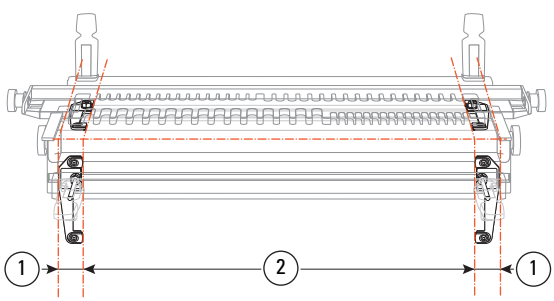


1-2

D1258, D1258R and D3 jig owners:

If you already own the Leigh Mortise and Tenon Attachment, fit the extended support brackets ① of this attachment and use for all finger jointing and dovetailing procedures. If not, mark the tops of the arrow pointers on the standard support brackets ② with a dark felt pen.

D4 and D4R Jig owners already have the extended brackets.

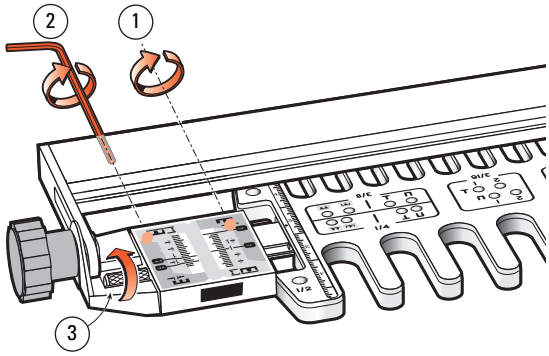


1-3 Centring the Template on the Jig

All 24" D series jigs except D4R

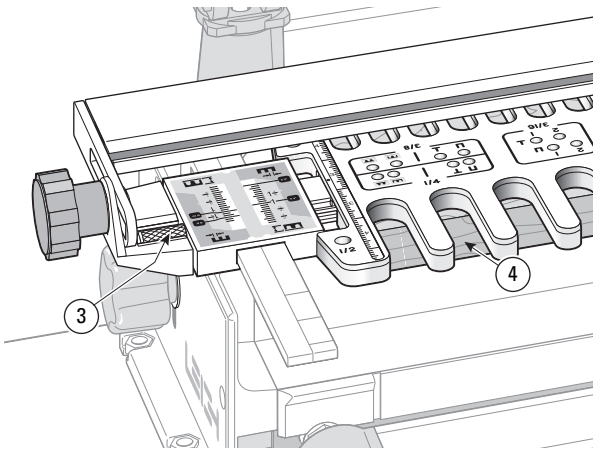
Before installing the F2/F2M on any 24" D series jigs that have adjustable side stops, it is imperative that those stops are correctly set and indexed **according to the assembly instructions in the jig's user guide**. Are the stops 1 1/2"[38mm] in from each end of the jig body extrusion ①? Are the stops 24 1/8"[613mm] apart ②? If not set up correctly, this must be done now.

D4R and D1600 jigs have fixed side stops and do not require setup.



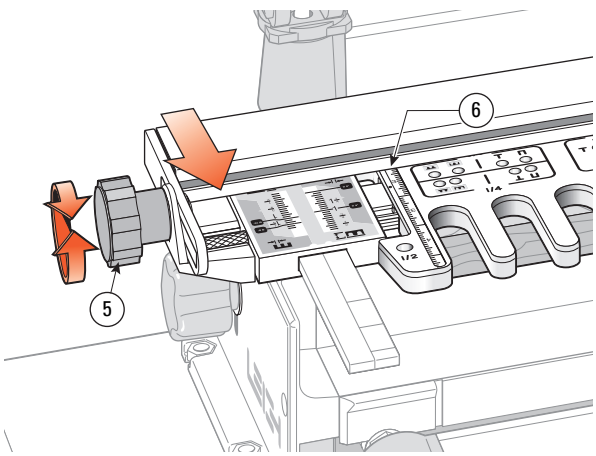
1-4 Attaching the Scales

Loosen the two scale bar set screws ①, the two fence bracket screws ②, and two scale thumb screws ③ at both ends of the template.



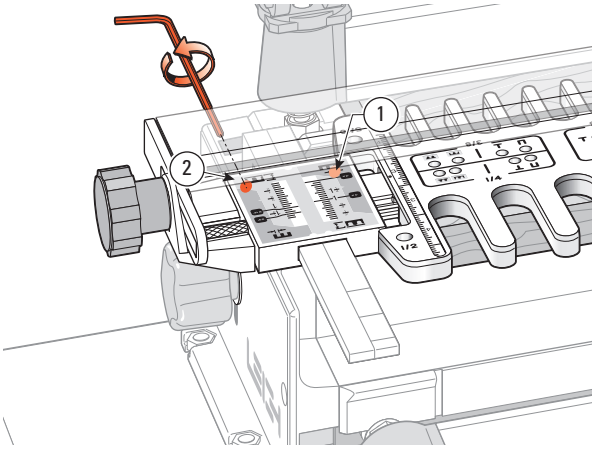
1-5

Slide the template assembly onto the jig support brackets with the ½" & ¼"[12mm] combs toward you and lower it gently onto the jig's spacer board ④. Make sure the scale reading is the same on both scales, say on the 1"[25mm] mark, then tighten the thumb screws ③.



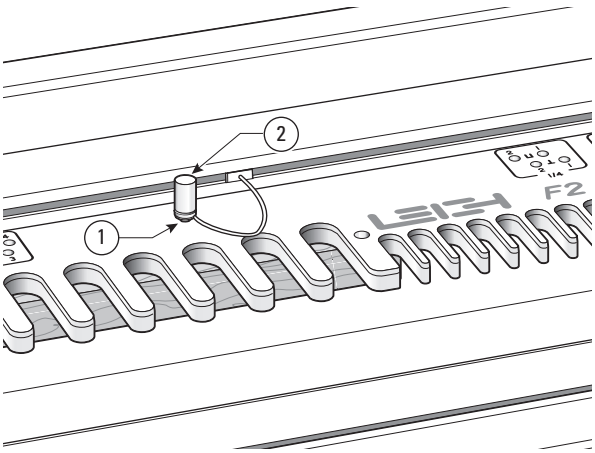
1-6

Loosen the fence knobs ⑤ and move the fence on the template toward you as far forward as possible and with the fence scale reading the same at both ends ⑥. Then tighten the fence knobs ⑤.



1-7

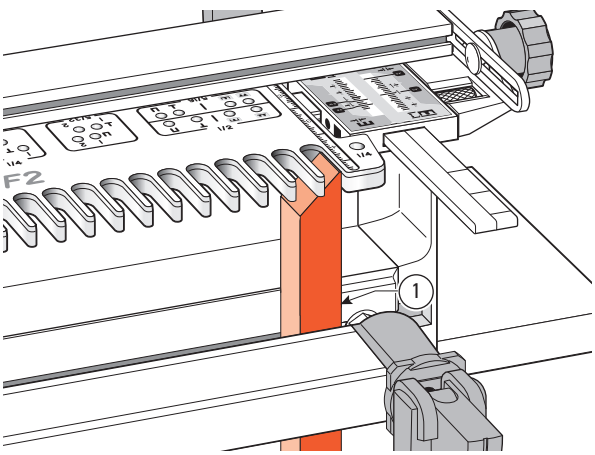
Tighten the scale bracket screws ②, but **do not tighten the scale bar ① screws yet**.



1-8 Centring the F2

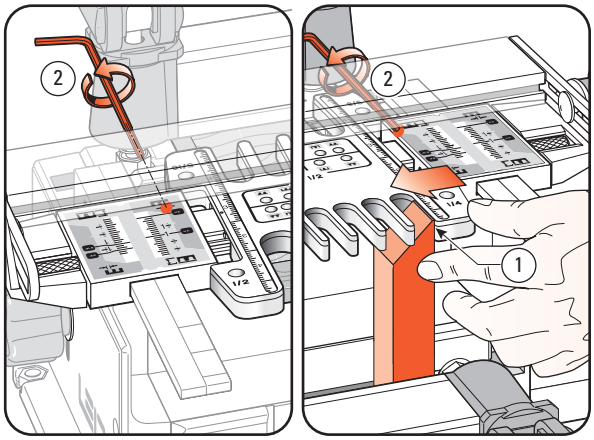
For F1600 centring, see 1-11

Align the template so that the template's centre hole ① lines up with the hole in the bar and insert the template pin ②. *Discard the shipping plug from the hole.* Gently twist and push the tapered pin into the hole until it is fully seated. The template is now perfectly centred on its bar, but now we must centre the bar in the scales.



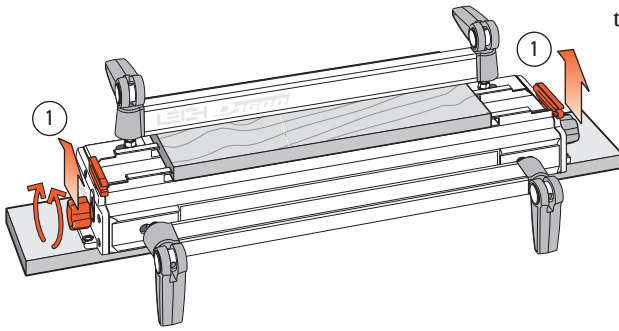
1-9

Angle trim the end of a perfectly straight block. Slide the combined bar/template to allow the block to protrude into the last socket of the ¼"[8mm] comb. Clamp with its vertical edge tight against the right hand side stop ①.



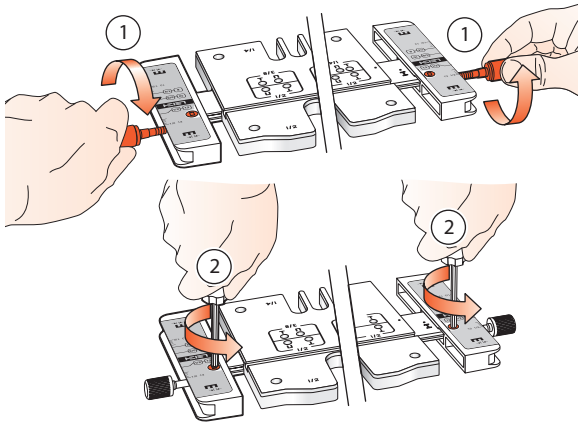
1-10

Move the combined template and bar to the left until the right side of the outer ¼"[8mm] opening touches the block ①. Taking care to not move the template assembly, tighten the scale screws at both ends of the template ②. Remove the wood block and your Leigh F2 is ready for use.



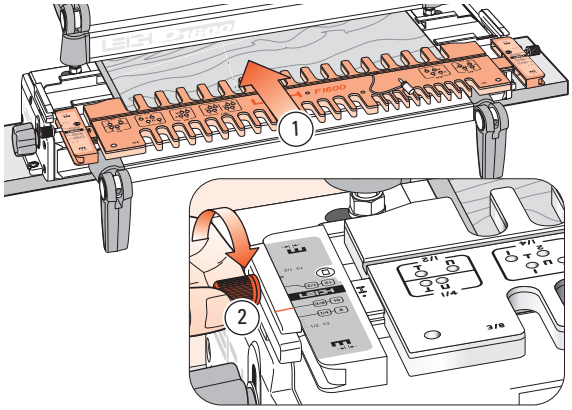
1-11 D1600 Jig Owners

Raise both end support brackets and tighten the support bracket knobs ①.



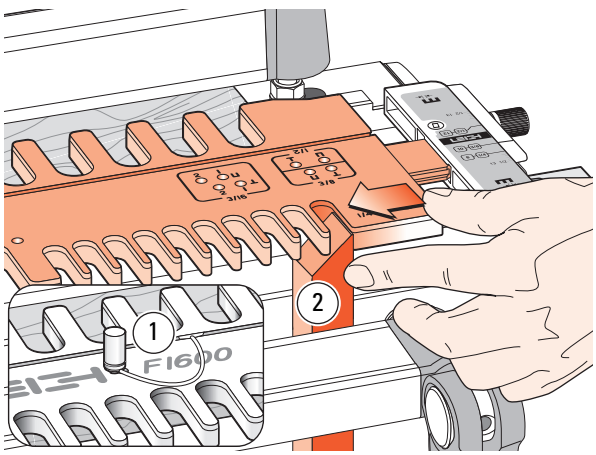
1-12

Install the two thumbscrews a few turns into the scales ①. Loosen the scale lock screw ② at **both** ends (by one turn only).



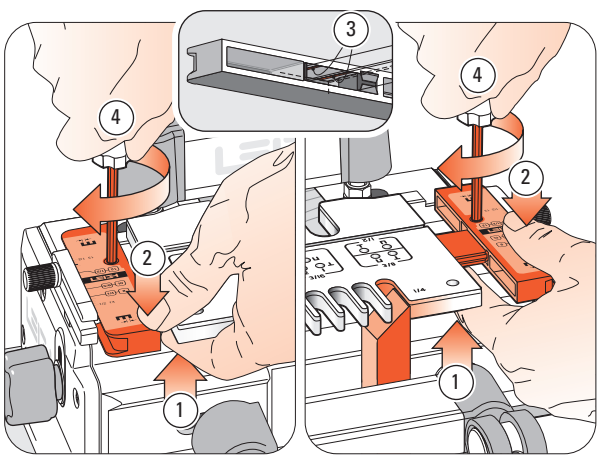
1-13

Slide the template onto the support brackets, with the ⅜"[10mm] comb toward you ① and set on the ⅜"[10mm] setting.
Tighten both thumbscrews ②.
Do not lower the assembly onto the finger support board.



1-14

Remove and discard the shipping plug from the template centre hole. Align the centre hole with the hole in the bar and firmly insert the Template Pin ①.
Move the combined template and bar to the left until the right side of the outer ¼"[8mm] opening touches the block ②. Taking care to not move the template assembly…



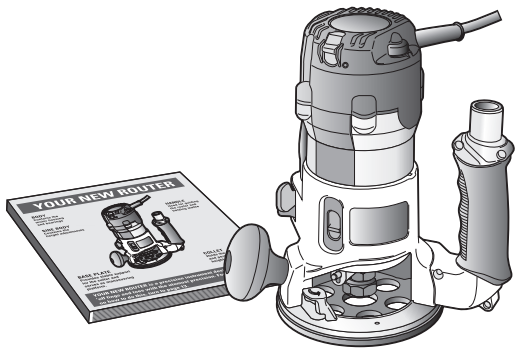
1-15

…pull up on the template bar ① while pushing down on the scale ② to ensure the bar is touching the two registration pads ③ inside the scale. Maintain pressure and tighten the scale lock-screw ④. Repeat at the other end. Remove the block and your template is ready to use.
To maintain correct template alignment, follow this procedure whenever you remove the scales from the finger assembly. ■

F2, F1600 ***CHAPTER 2***

Using Your Template Safely

Safety is not optional.
Read and follow the recommendations in this chapter.



2-1

Read the owner's manual that came with your router. It is essential to understand the router manufacturer's instructions completely.

2-2

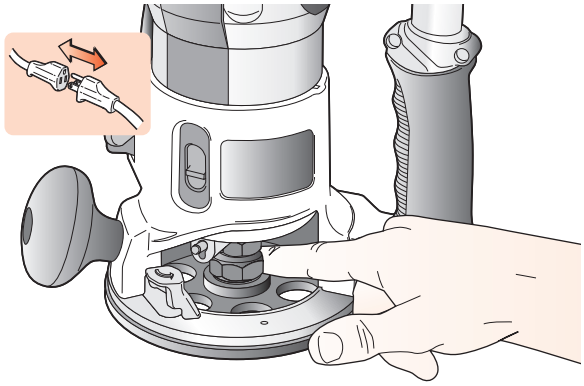
Most importantly, always wear approved safety glasses when using a router.

Always wear hearing protection when using a router.

Protect yourself from harmful dust by wearing a face mask.

2-3

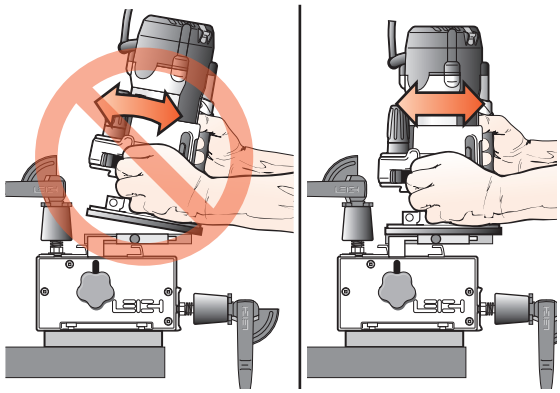
Never drink alcohol or take medications that may cause drowsiness when you will be operating a router.



2-4

Always disconnect the power source from the router when fitting cutters or guidebushes, or making adjustments.

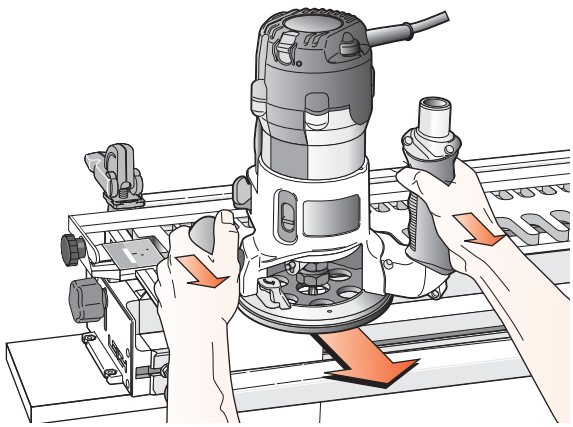
Before connecting the router to the power source, make sure the cutter and collet revolve freely in all the areas you plan to rout, and the cutter does not touch the guidebush or jig.



2-5

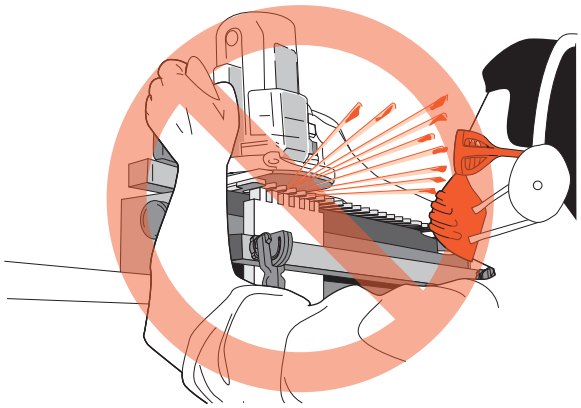
Do not tilt the router on the jig.

Keep the router flat on the jig assembly.



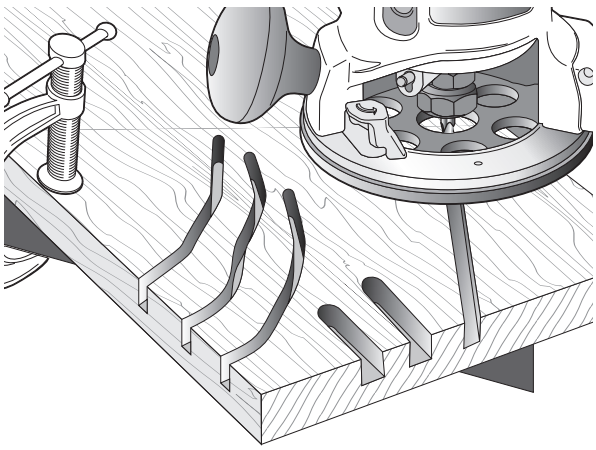
2-6

If you insist on removing the router from the jig while it is still revolving, **always pull it straight off the jig horizontally, and do not raise or lower the router until it is completely clear of the jig.**



2-7

Do not rout at face level.



2-8

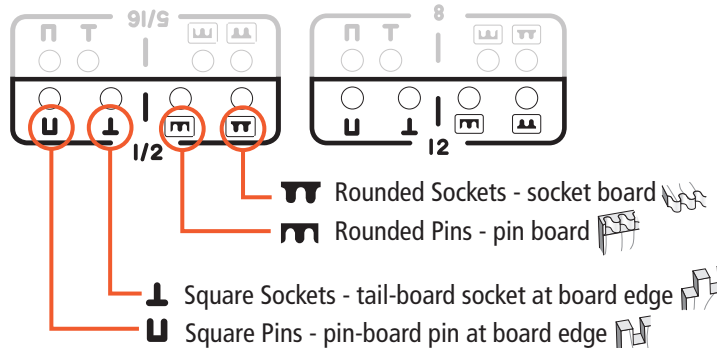
If you have never used your router before, be sure to follow the router manufacturer's instructions for its use. Make plenty of simple open-face practice cuts *without a guidebush* before you try to use the router on the Leigh jig. You must, of course, **always use a guidebush when routing on the Leigh Template.** ■

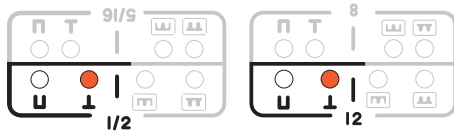
F2, F1600 ***CHAPTER 3***

Operation Concepts and Basic Template Functions

Template Modes F2

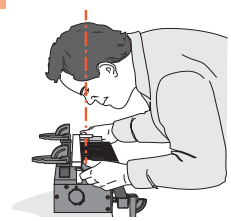
Template pin hole icons denote the type of joint and edge finish from each position.





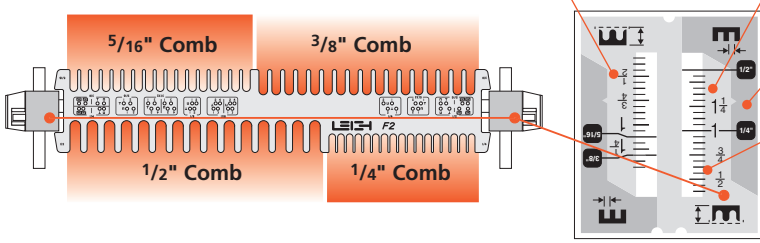
Throughout the manual, the proper pin location for each step is highlighted with red in an inset. Only the front (active) pinholes will be shown.

Scale Modes F2



Always read scales from directly overhead to avoid parallax problems.

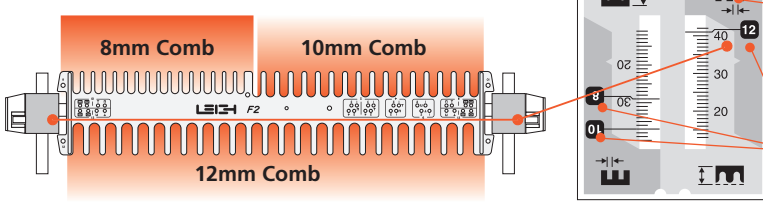
The inactive scale is always on the left side of each scale assembly and is upside down.



The active scale is always on the right side of each scale assembly.

Green scales are for box joints.

Grey scales are for rounded finger joints and denote the thickness of the vertical pin board.



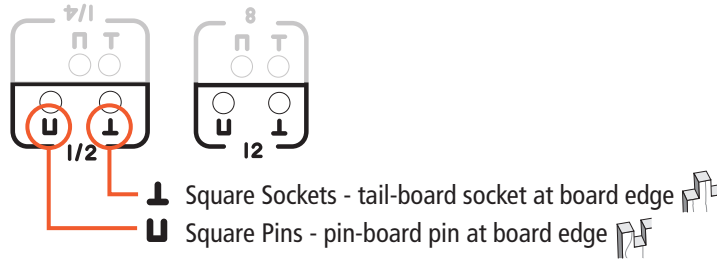
Each scale has its own mode icon representing the current joint part being made.

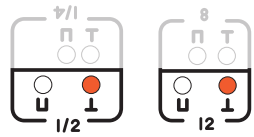
There are four settings for inch box joints, and three for metric.

The specific settings for each scale are fully described in the appropriate chapters.

Template Modes F1600

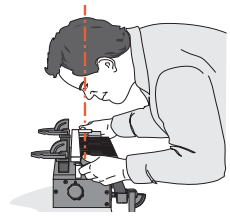
Template pin hole icons denote the type of joint and edge finish from each position.



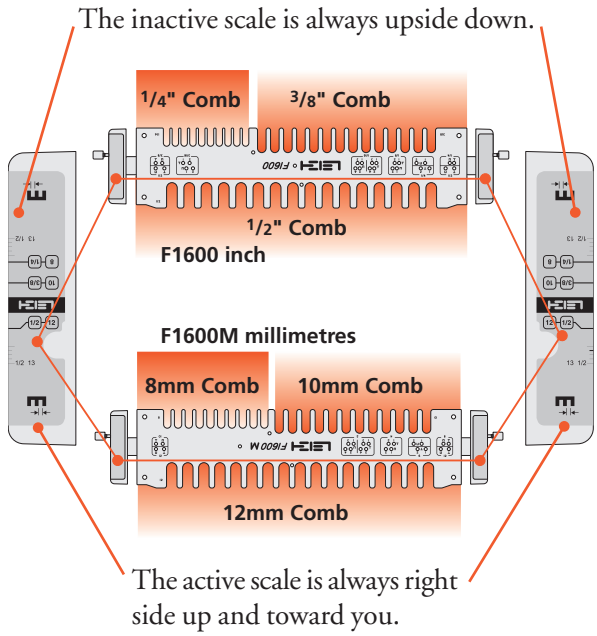


Throughout the manual, the proper pin location for each step is highlighted with red in an inset. Only the front (active) pinholes will be shown.

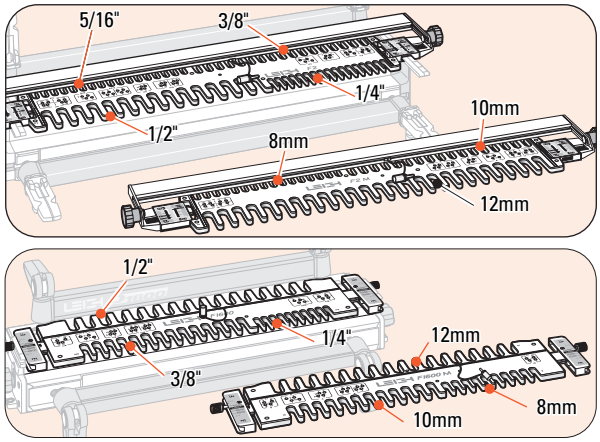
Scale Modes F1600



Reading scales from directly overhead improves setting accuracy.

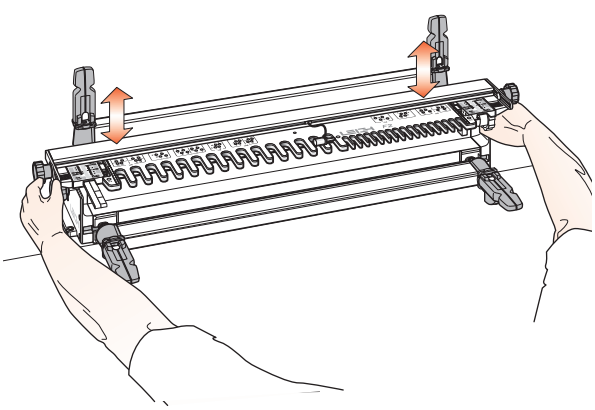


The specific settings for each scale are fully described in the appropriate chapters.



3-1

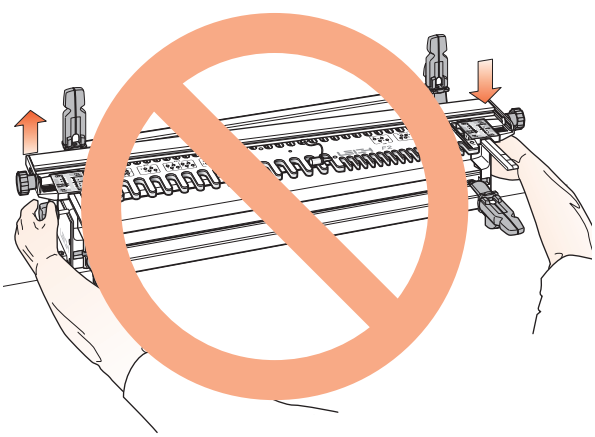
The *active* comb (the one you wish to use) is positioned toward you at the front of the jig. Depending on the Template model and comb size selected, the active comb may start at either the right, or left-hand side of the jig. **Combs that are the full width of the template always start at the left side.**



3-2

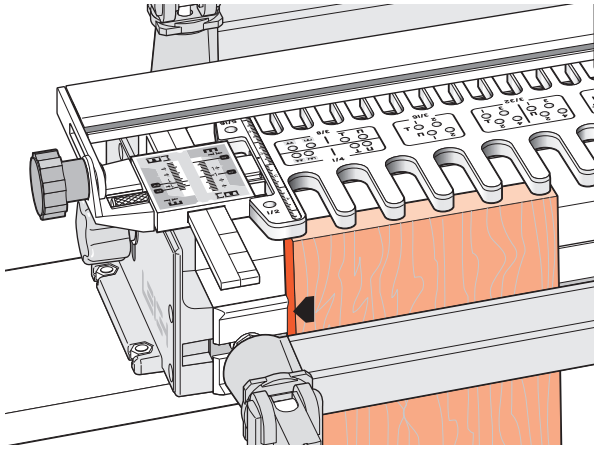
The template is raised or lowered using the support brackets to suit different thicknesses of horizontal boards.

Remember, this sequence of "operation concepts" shows the F2 template, but the same procedures apply to the F1600.

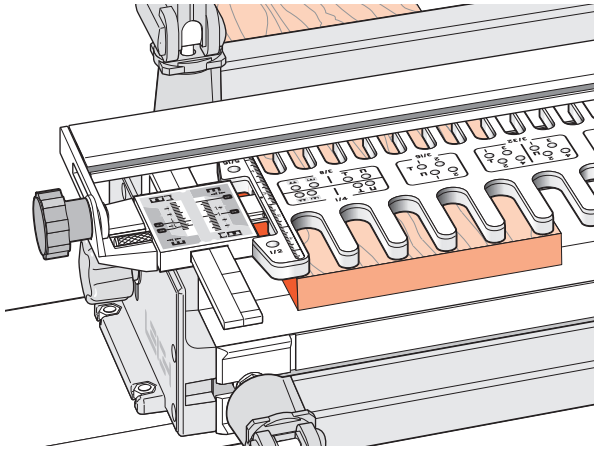


3-3

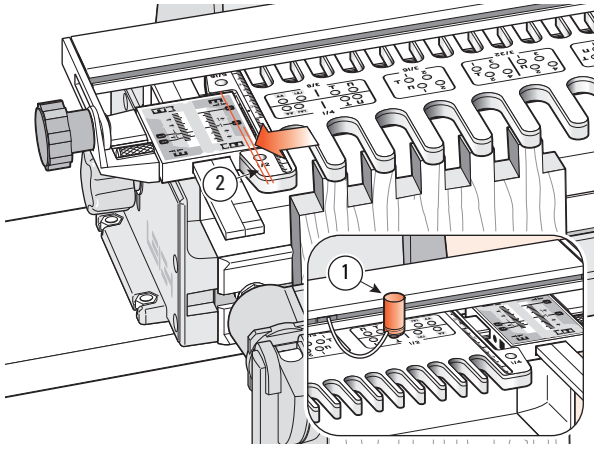
Do not raise or lower one end of the template at a time.



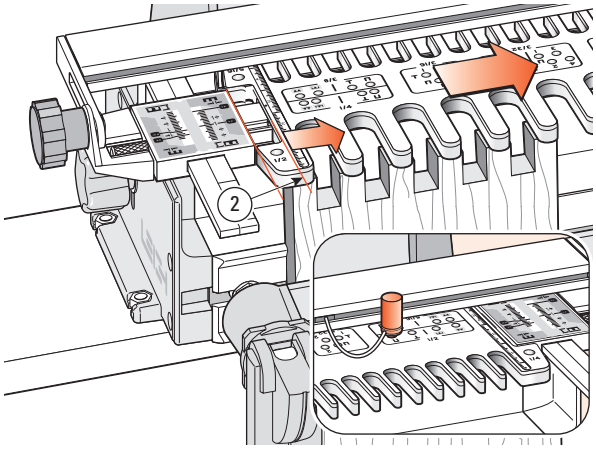
3-4
You will clamp your work pieces against the front side stop or...



3-5
...the mating rear side stop, depending on which procedure is to be used.

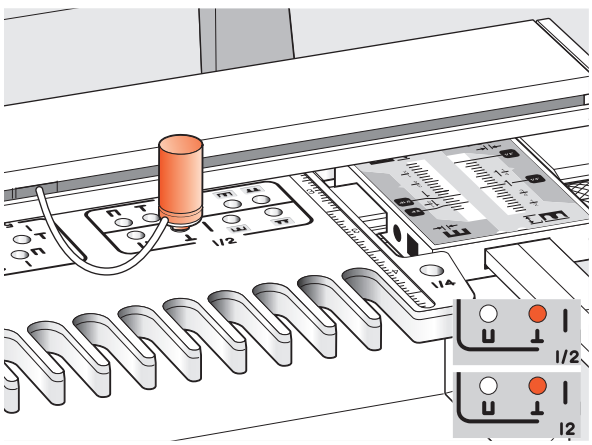


3-6
Mating joints routed under the same comb have to be offset to achieve correct joint alignment. On Leigh templates the offset is achieved by moving the template left or right by half the pitch of the comb. This movement is controlled by the template pin, at the other end of the template ①. *Note that the template is close to the scale* ②.



3-7

In this illustration, the template is moved to the right by half the comb pitch and positioned by the template pin to rout the mating half of the joint in 3-6 above. *Note the increased gap between the scale and template* ②.



3-8

The template control pin engages the template to the template bar using precisely positioned holes. The active template pin holes are always at the opposite end of the template from the active comb, out of the way of the router. Most illustrations will have an inset ① showing the correct template pin hole position for the procedure. ■